

REMARKS

Claims 1-6 and 8-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kumar et al. (WO 00/49452) in view of Suzuki et al. (U.S. Publication No. 2002/0080320A1). Applicant respectfully traverses the rejection because the cited references fail to disclose or suggest a section or sections that control the alignment directions caused by a polymerized liquid crystal composition obtained by selection irradiation of active energy rays and that are installed on either one of the surfaces only which contact the liquid crystal layer or independently on both surfaces such that the section or sections do not contact both substrates.

Kumar is directed to electrically controllable liquid crystal microstructures. FIG. 6 of Kumar shows the liquid crystal region 54 between a pair of substrates 24, 24 and electrodes 26, 26. An alignment layer 28 is formed on the lower electrode 26. A liquid crystal material 56 is formed in the liquid crystal region 54 and also includes a polymer material 58. An interface 60 separates the polymer material 58 and liquid crystal material 56. In the outstanding rejection on page 3, the Examiner asserts that the liquid crystal layer 56 of Kumar has a section or sections 58 that are installed on either one of the surfaces only which contact the liquid crystal layer 56, or independently on both of the surfaces where the section or sections do not contact both substrates. Applicant respectfully traverses this statement of the Examiner.

Page 10, lines 8-11 of Kumar teach that the liquid crystal-polymer interface occasionally penetrates the liquid crystal volume and binds to the opposing substrate. This

provides mechanical strength to the cell, making it difficult for mechanical deformations to affect the cell's performance. Accordingly, since the interface penetrates the liquid crystal volume and binds to the opposing substrate to provide mechanical strength, Applicant respectfully submits that the polymer material 58 much contact both electrodes 26, 26 to provide such mechanical strength. For this reason, Applicant respectfully submits that Kumar fails to disclose or suggest a section or sections that do not contact both substrates, as recited in claim 1. Since Suzuki also fails to disclose or suggest a section or sections that are installed on either one of the surfaces only which contact the liquid crystal layer, or each independently on both of the surfaces wherein a section or sections do not contact both substrates, any combination of Kumar and Suzuki fail to disclose or suggest this feature. For this reason, the rejection is improper and should be withdrawn, which is respectfully requested.

For all of the foregoing reasons, Applicant submits that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge any additional fees which may be required to this Application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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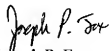
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